

# The Magic School Bus

## INSIDE A HURRICANE

By Joanna Cole

Illustrated by Bruce Degen







# *The Magic School Bus* *Inside a Hurricane*







# **The Magic School Bus** **Inside a Hurricane**

**By Joanna Cole**  
**Illustrated by Bruce Degen**





CLASS, TO UNDERSTAND  
WEATHER, WE HAVE TO  
KNOW ABOUT THE SUN.

IT'S A HOT TOPIC!

The Sun Heats  
Our Earth

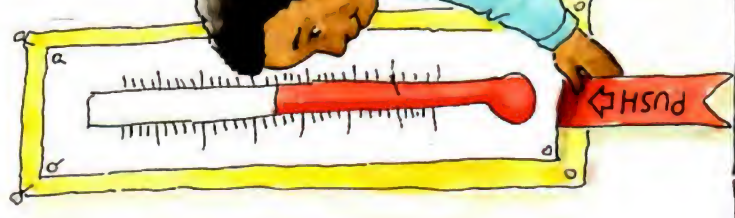


Have you heard about our teacher, Miss Frizzle?  
Her clothes are wild, her school bus is wacky,  
and her class trips are weird.  
Whenever we study something in her class,  
we get into it in a really big way.

OUR TEMPERATURE RECORD by Dorothy Ann & Tim		
	Morning	Afternoon
MONDAY	65° F	73° F
TUESDAY	71° F	80° F
WEDNESDAY	69° F	76° F
THURSDAY	70° F	75° F

Q: WHY IS THE  
TEMPERATURE  
USUALLY HIGHER  
IN THE AFTERNOON?

A: BECAUSE BY  
AFTERNOON, THE SUN  
HAS BEEN WARMING  
THINGS UP ALL DAY.





We were learning about weather.  
 Absolutely everything in our room  
 was about rain or snow or sun or wind.  
 Every kid in the class  
 was doing a weather project.  
 We were even listening to  
 weather reports on Miss Frizzle's radio.



**SPELLING WORDS**

Sun	Wind
rain	snow
drizzle	sleet
hail	hurricane
don't	forget
your	umbrella

AT MY OLD SCHOOL  
 WE DIDN'T HAVE  
 ALL THESE PROJECTS!

AT MY OLD SCHOOL  
 OUR TEACHER DIDN'T  
 DRESS LIKE THAT



ANEMOMETER  
 measures  
 wind, force  
 and speed.

AND NOW FOR  
 THE WEATHER...



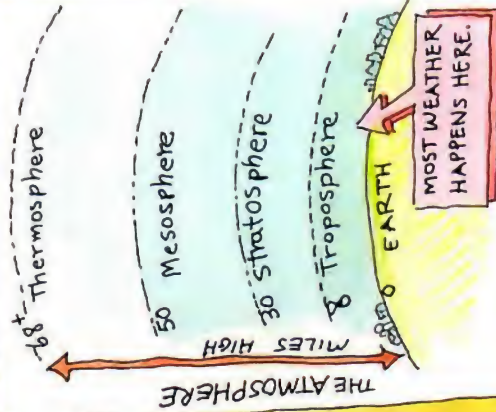


THE EARTH IS WRAPPED  
IN A BLANKET OF AIR  
by Tim

(EARTH) - ATMOSPHERE

Our atmosphere is a  
blanket of air hundreds  
of miles thick.

Most of our weather  
happens in the troposphere -  
the 8 miles of air that is  
closest to earth.



So we weren't surprised one morning  
when Miss Frizzle said,  
"It's a perfect day for our trip  
to the weather station!"

WE'LL MEET A TEAM OF  
WEATHER FORECASTERS.  
WE'LL LEARN ABOUT  
OUR ATMOSPHERE!

MISS FRIZZLE SAYS WE HAVE TO  
KNOW ABOUT AIR TO UNDERSTAND  
WEATHER.

AND WE HAVE TO KNOW  
ABOUT WATER, TOO.

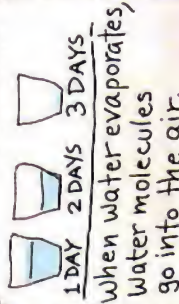
I CAN'T SEE IT.

AIR IS A MIXTURE  
OF INVISIBLE GASES.  
by Shirley

AIR HAS WEIGHT.  
by Ralphie



AIR CONTAINS WATER.  
by Wanda



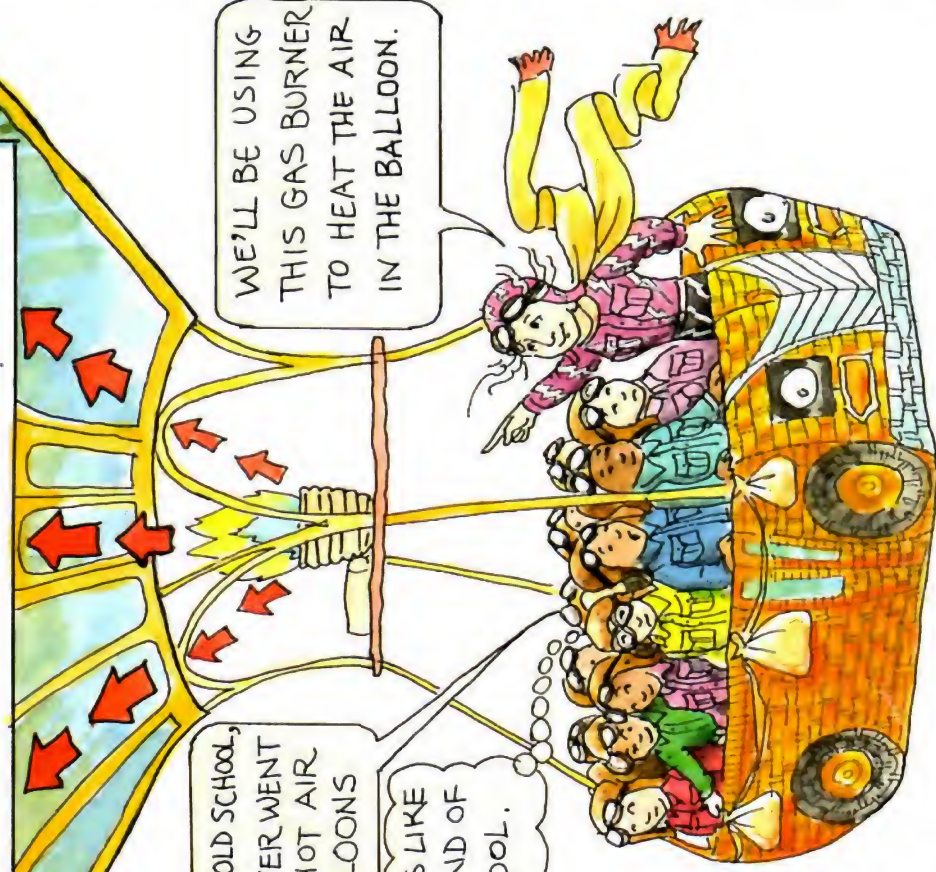


All of a sudden Dorothy Ann said, "Look!"  
We couldn't believe it.  
We were all wearing flying suits.  
We were sitting in a basket!  
The bus had turned into a hot air balloon,  
and we were about to lift off!

AT MY OLD SCHOOL,  
WE NEVER WENT  
UP IN HOT AIR  
BALLOONS

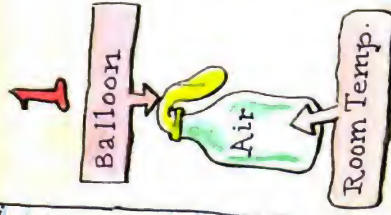
SOUNDS LIKE  
MY KIND OF  
SCHOOL.

WE'LL BE USING  
THIS GAS BURNER  
TO HEAT THE AIR  
IN THE BALLOON.



HEAT MAKES AIR EXPAND  
by Molly

Hot air expands because  
heat makes air molecules  
bounce far apart.



1

Air expands  
and flows  
into balloon.

2

Hot  
water  
heats  
air



Ask an adult  
for help when  
using very hot  
water.

TWO WORDS FROM

DOROTHY ANN

When something expands,  
it spreads out.

Air molecules are the  
tiniest bits of air.



# SEE HOT AIR RISE

by Alex and Rachel



1. Cut a Spiral. 2. Needle and thread



## WHY DOES HOT AIR RISE?

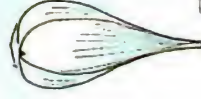
by Carlos

Hot air is lighter than cold air, so it "floats" on top of cold air, the way a marshmallow floats on hot chocolate.



We started going up, and Miss Frizzle said, "Didn't I mention, children, that hot air rises?"

CLASS, EVERY DAY ALL OVER THE WORLD, SCIENTISTS SEND UP SPECIAL BALLOONS TO TAKE WEATHER MEASUREMENTS.



WEATHER BALLOON

WE'RE GOING UP!

WOW!



We rose higher and higher.

Even though hot air was filling the balloon,  
the air around us was growing colder.  
We had to put on warm jackets.

IT'S COLD UP HERE!

YOU'RE NOT AFRAID  
OF HIGH PLACES,  
ARE YOU, ARNOLD?

THAT RADIO SPOKE TO ME!

HOW DID IT KNOW MY  
NAME?

I KNEW I SHOULD HAVE  
STAYED HOME TODAY.

GOING UP?

○ BETTER BUNDLE UP!

by Phoebe

BRRR.

○ Warm air rises  
from earth.  
As it goes up,  
it gets colder.

YOU CAN'T SEE IT,  
BUT IT'S ALL  
AROUND YOU.  
WHAT IS IT?

AIR!

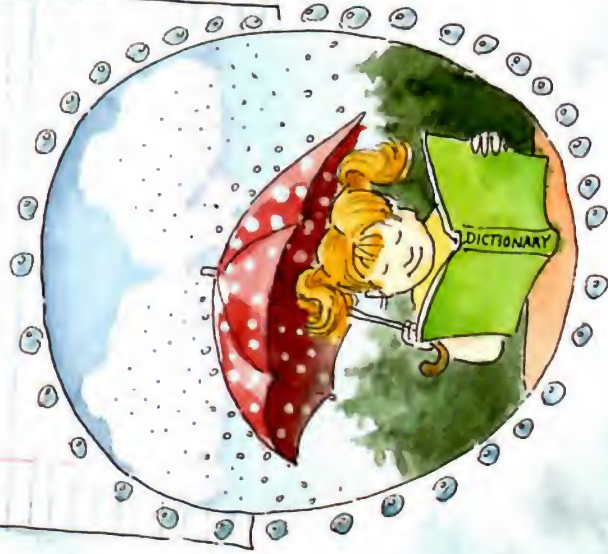
Riddle  
Book



## A WEATHER WORD

by Dorothy Ann

When water condenses,  
molecules of water vapour  
join together and make  
drops of liquid water.



“Warm air rising from earth carries  
lots of water vapour molecules,”  
Miss Frizzle continued.

“As the air rises, it cools down.  
The water condenses in the air  
and forms clouds.”

DID YOU BRING  
YOUR RAINCOAT,  
ARNOLD?

TELL ME THIS  
ISN'T HAPPENING....





We drifted into the centre of a cloud.  
Miss Frizzle was right – it was *damp* in there.  
The cloud was made of tiny water droplets  
hanging in the air.



WHEN IS THAT TEACHER  
BRINGING HER CLASS?

NOT TILL LATER.

MUCH LATER...

WHAT KIND OF CLOUDS  
ARE FORMING AROUND  
MISS FRIZZLE AND THE KIDS?



WEATHER  
STATION

## THREE KINDS OF CLOUDS by Wanda

1. Curly or wispy clouds  
are called cirrus.

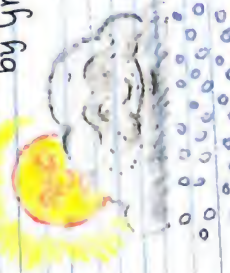
2. Layered clouds are called  
stratus.

3. Lumpy or puffy clouds  
are called cumulus.



# WHAT MAKES RAIN CLOUDS TURN DARK?

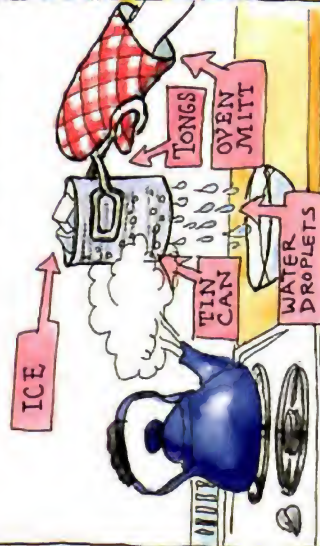
by Gregory



Rain clouds have lots of ice crystals and big, heavy raindrops. These block out the sun.

## OUR RAINMAKING PROJECT

by Amanda Jane and Arnold



WHEN YOU  
USE THE STOVE...

...REMEMBER  
TO ASK AN  
ADULT TO HELP.

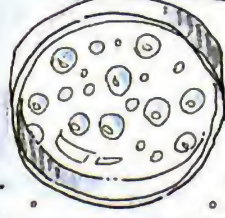


Inside the cloud, droplets began coming together. They formed bigger and bigger drops. As the drops became heavier, they started falling.

IT TAKES THOUSANDS  
OF DROPLETS TO FORM  
JUST ONE RAINDROP.

MOST CLASSES  
STAY IN ON  
RAINY DAYS.

NOT MISS FRIZZLE'S  
CLASS!





Down below, the weather forecasters were standing in the rain. They didn't see us inside the cloud, but we could hear their voices. One of them said, "I hope that teacher knows there's a *hurricane watch* in effect."

## WHAT IS A HURRICANE?

by Florrie

A hurricane is one of the most violent kinds of storms.

In a hurricane, winds swirl in a circle around the storm's centre at 74 miles per hour or more!



## MORE WORDS FROM DOROTHY ANN

A Hurricane Watch means that a hurricane may strike within the next 36 hours.

A Hurricane Warning means that a hurricane is likely to strike within the next 24 hours.

A warning is more urgent than a watch.

CHECK OUT MY HURRICANE WATCH, ARNOLD. GET IT? HURRICANE WATCH!!

I'M PRETENDING I CAN'T HEAR....





## WHAT IS THE EQUATOR?

by Carlos

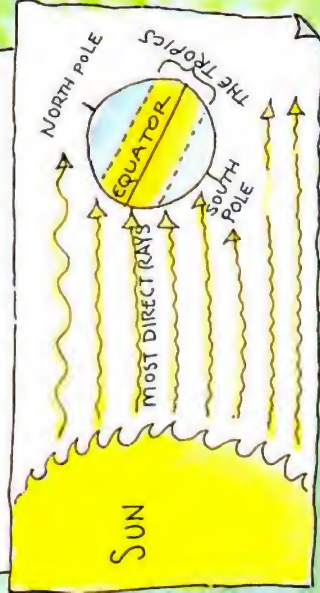
The equator is an imaginary line around the earth's middle. It divides the globe into two equal parts.



## WHY IS IT HOTTER NEAR THE EQUATOR?

by Michael

Because of the way the earth is tilted, the sun's rays almost always shine towards the earth's middle. This means there are no cold winters there.



As usual, Miss Frizzle paid no attention. She turned up the fire, and more hot air rushed into the balloon. As we rose above the cloud, the wind started pushing us south. Before long, we had travelled thousands of miles. Miss Frizzle said we were above a tropical ocean about five hundred miles north of the equator.

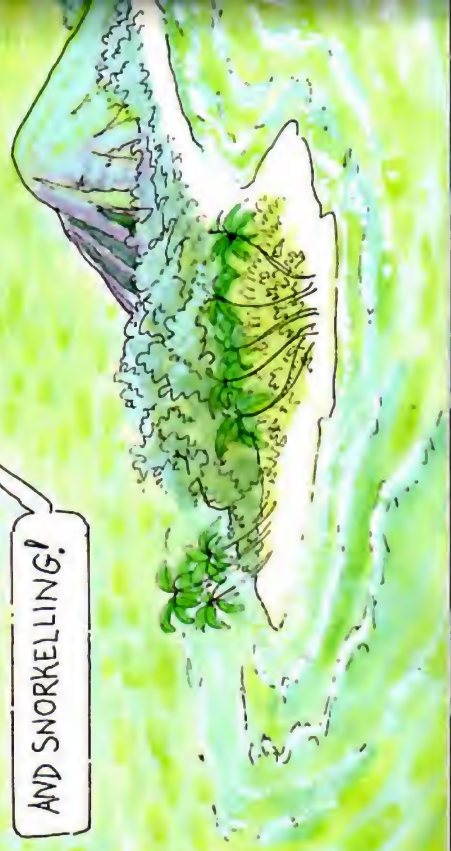


Wow! LOOK AT THAT WATER!

WE CAN GO SWIMMING!

AND WINDSURFING!

AND SNORKELLING!





Below us, blue-green waves were sparkling.  
On a sandy island, palm trees were waving.  
It looked like a holiday paradise to us.  
But Frizzie said, "Class, we have now arrived  
at one of the world's hurricane breeding grounds!"

NEARLY ALL HURRICANES  
GET STARTED OVER WARM  
TROPICAL OCEANS, KIDS.

I'VE HEARD THAT  
HURRICANES ARE  
DANGEROUS.

SO MISS FRIZZLE IS  
TAKING US TO ONE.

SHE WOULD!

WHY DO HURRICANES HAVE NAMES?

by Carmen

Often, more than one  
hurricane is brewing at once.  
It's easier to keep track of  
them if they are given

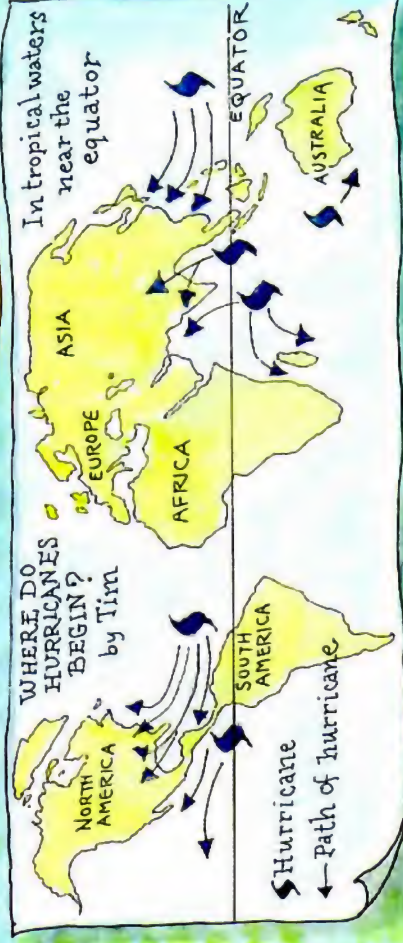
names.

Some famous hurricanes:

- Agnes
- Andrew
- Bob
- Elena
- Gilbert
- Gloria
- Hugo

HI BOB!

WHAT'S  
HAPPENING  
GLORIA?





## WHEN IS HURRICANE SEASON?

by Rachel

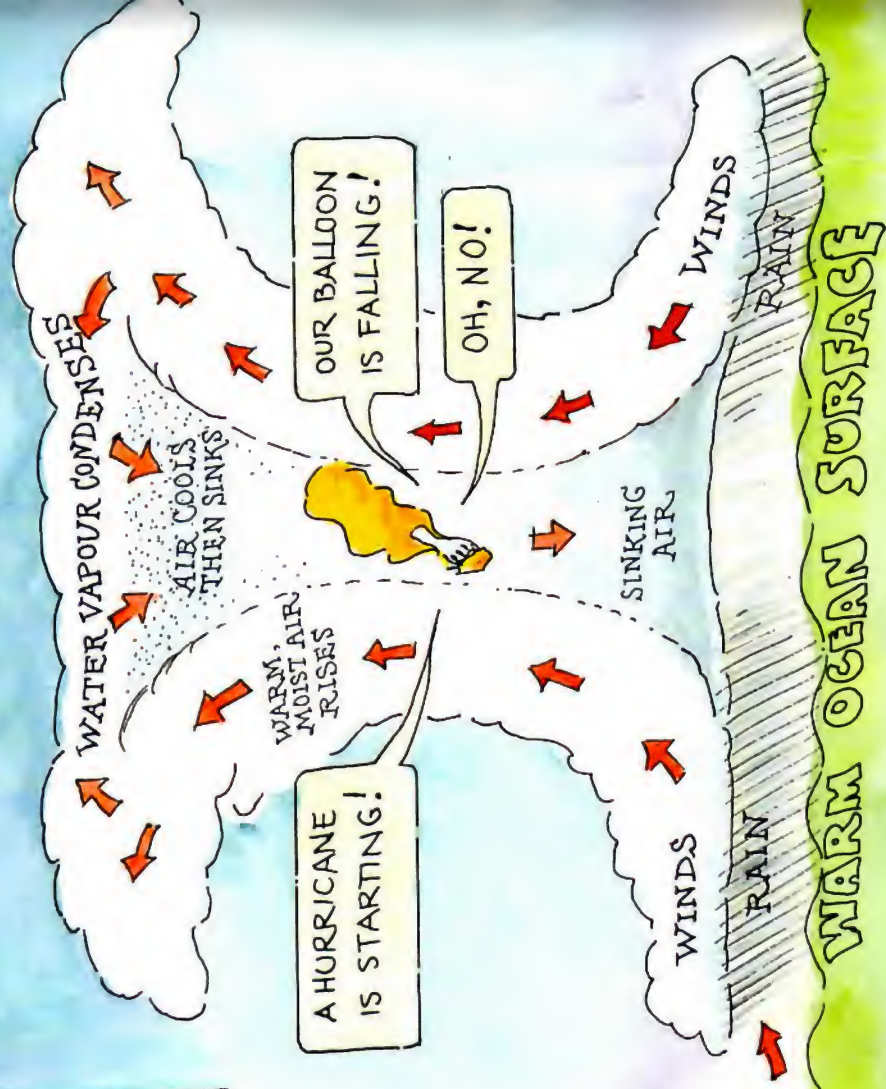
Most hurricanes begin in the late summer and early autumn. That is when tropical oceans

are warmest.

The warmer the ocean is, the stronger the hurricane is likely to become.



"Class, remember that as hot air rises from the ocean surface, the water vapour in the air condenses and forms clouds," said the Friz. Down below, more hot air rushed in from all sides to take the place of the rising air. In the middle of the rising air, a column of sinking air formed. We started sinking with it.





"Oh dear," said Miss Frizzle.

"The balloon must have sprung a leak."  
Hot air was rushing out, and the balloon  
was plummeting fast.

"Jump ship, class!" shouted the Friz.  
She jumped overboard, and we went after her.  
Right away, we knew it was a big mistake.



DO ALL TROPICAL STORMS  
BECOME HURRICANES?

by Amanda Jane

No. All around the  
world, there are more than  
100 tropical storms each  
year. Only about 60 of them  
grow to hurricane strength.  
And only a handful  
of those ever reach places  
where people live.

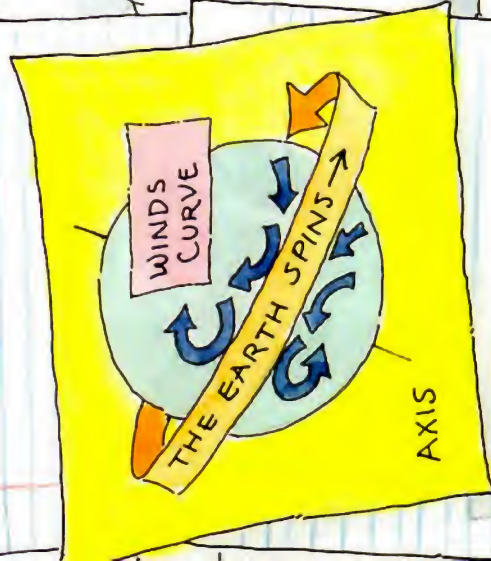




## WHAT MAKES HURRICANE WINDS BLOW IN A CIRCLE?

by Alex

Winds begin by blowing straight. But the movement of the earth as it spins on its axis makes them curve.



- The faster winds blow, the more they curve.
- Hurricane winds are very fast, so they curve and curve until they make a circle.

The wind was blowing the clouds into a huge circle.  
"The storm is starting to take on the typical shape of a hurricane. Isn't it fascinating, children?" shouted Miss Frizzle.





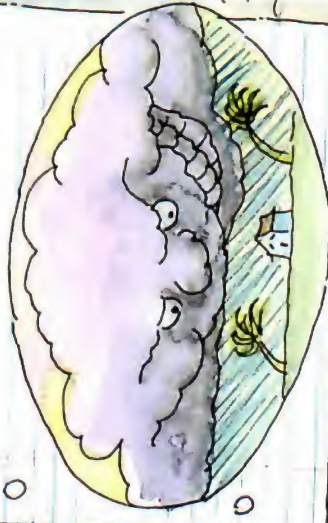
It was more than fascinating.  
It was terrifying!

We were caught in the edge of the storm,  
blowing around and around in a giant whirlwind.  
That whirlwind was a hurricane!

## HOW BIG IS A HURRICANE?

by John

Hurricanes are enormous.  
Each one is about 10 miles  
high and 300 to 600 miles  
wide!



A TYPICAL HURRICANE  
HAS A LIFE SPAN  
OF ABOUT 10 DAYS.

LISTENERS- WE'LL  
BE TELLING YOU  
ABOUT THE  
WHOLE HURRICANE.

MAYBE ITS  
BATTERIES WILL  
RUN OUT SOON.





## LIGHTNING IS ELECTRICITY

by Ralphie

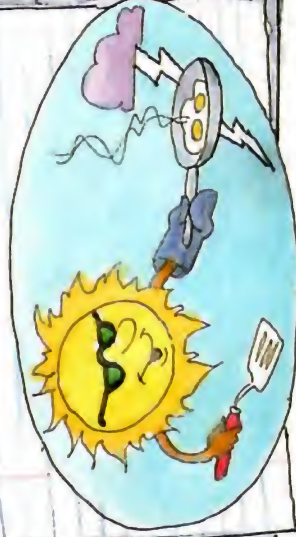
Clouds become charged with electricity. When the voltage gets high enough, electricity leaps from one place to another. Then we see lightning.



## LIGHTNING IS HOT!

by Keesha

A lightning bolt reaches a temperature of 50,000° F. That's about five times hotter than the sun's surface!



In the clouds around us, huge bolts of lightning were flashing. We thought it was all over for us, but then we saw the bus again. It had become a weather plane — the kind that explores hurricanes. We tumbled into a rescue chute and fell onto the plane . . . that is, the bus . . . er . . . we mean the plane.





Thunder crashed and boomed.  
We covered our ears.  
Miss Frizzle turned the plane,  
and we headed straight towards  
the centre of the storm.  
We had the feeling someone  
was missing.

- THUNDER IS A SOUND MADE  
BY AIR
- by Phoebe
- Lightning heats up air  
and makes it expand.  
Thunder is the sound of  
the air expanding.
- When you open a soft  
drink can, you hear a "pop."  
That's the sound of air  
expanding. It's just like  
thunder, only much  
smaller.

WE ARE NOW  
EXPERIENCING  
THE HURRICANE  
CLOSE UP....

BUT NOT TO WORRY,  
ARNOLD, I'M SURE  
WE'LL BE FINE.

WHY DOES  
EVERYTHING  
ALWAYS HAPPEN  
TO ME?!



RADAR

RADAR

BOOM



BOOM



THUNDERSTORMS: RAIN, RAIN,  
AND MORE RAIN  
by Florrie

In 20 minutes, one  
thunderstorm sends down  
125 million gallons  
of water!

We flew through miles of thunderstorms,  
and Miss Frizzle took the register.  
Guess who was missing — Arnold!  
He had fallen and missed the plane!

ARNOLD IS NOW  
EXPERIENCING  
THE HURRICANE  
CLOSE UP...

ARNOLD FELL!

BUT NOT TO WORRY,  
TIM. I'M SURE  
HE'LL BE FINE.

POOR  
KID!

OH NO!





Miss Frizzle marked Arnold absent  
and flew straight into the storm.

WE'RE FLYING  
INTO THE  
HURRICANE!

WHAT A  
DISASTER!

WHY DOES  
EVERYTHING  
ALWAYS HAPPEN  
TO US?!





How fast do the winds blow inside a hurricane?

by Carmen

Outer hurricane	40 mph
Middle hurricane	74 mph
Inner hurricane	120-150 mph

How fast is the wind blowing at the eye wall, kids?



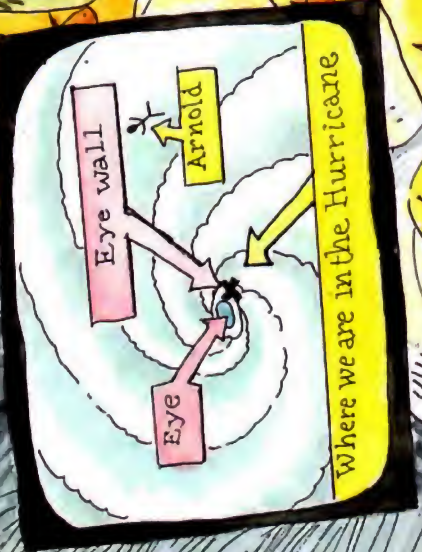
The further in we went,  
the faster the winds blew.  
At last, we came to the inner hurricane  
and entered the eye wall – a ring of  
heavy clouds around the storm's centre.  
In the eye wall, the winds  
were blowing the fastest yet!  
And the rain was coming down  
in sheets!

THE EYE WALL IS  
THE FIERCEST PART  
OF THE HURRICANE!

WE'RE ENCOUNTERING  
TURBULENCE, CLASS.

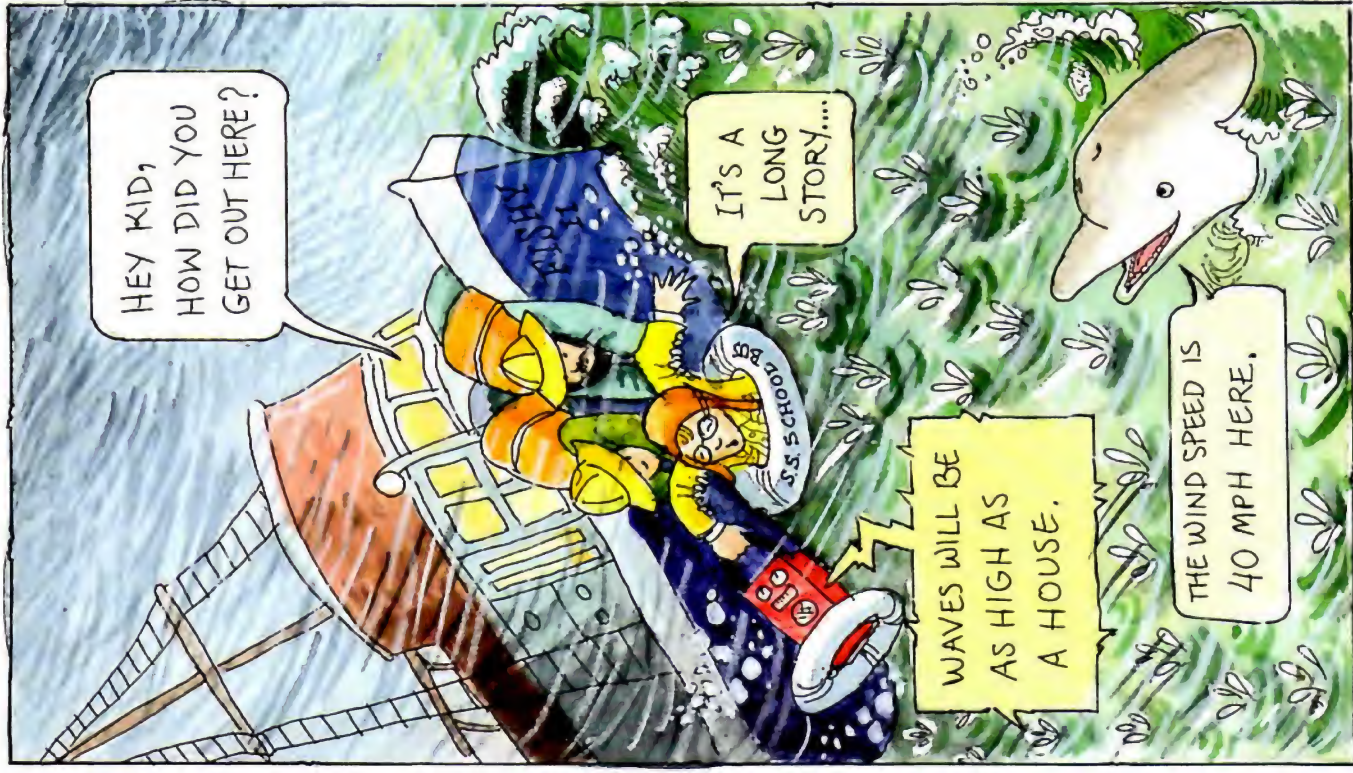
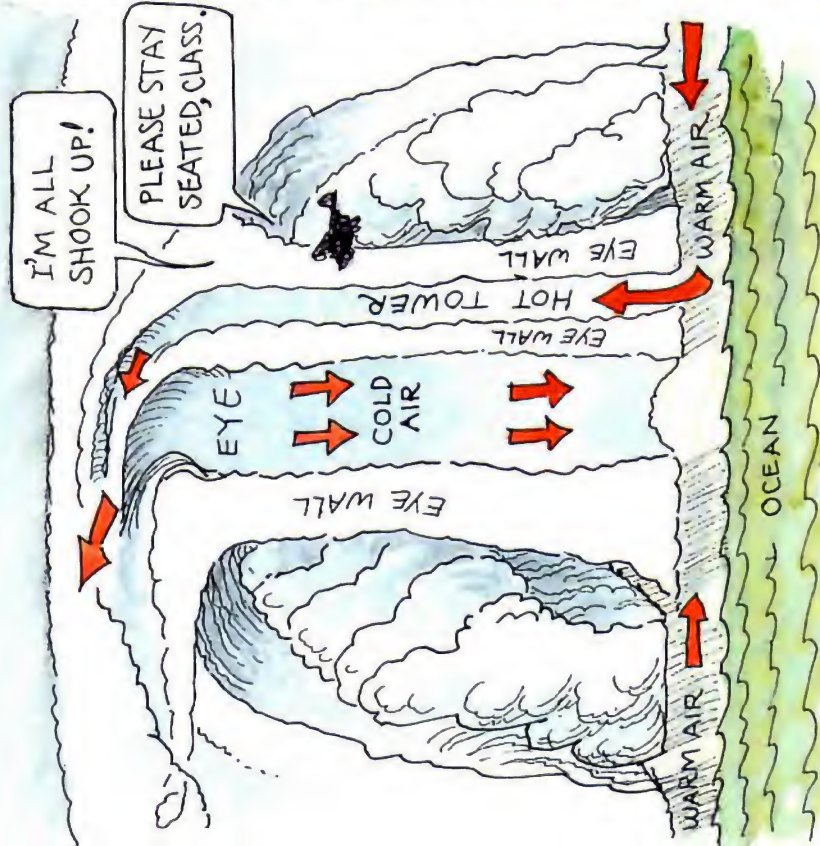
TURBULENCE  
IS WHEN THE AIR  
IS VIOLENTLY  
DISTURBED.

I AM VIOLENTLY  
DISTURBED!





All around were columns of air called hot towers, or chimneys. They were sucking up more and more hot moist air from the ocean. The heat energy from the air was feeding the storm and making it stronger. The plane was shaking and so were we!

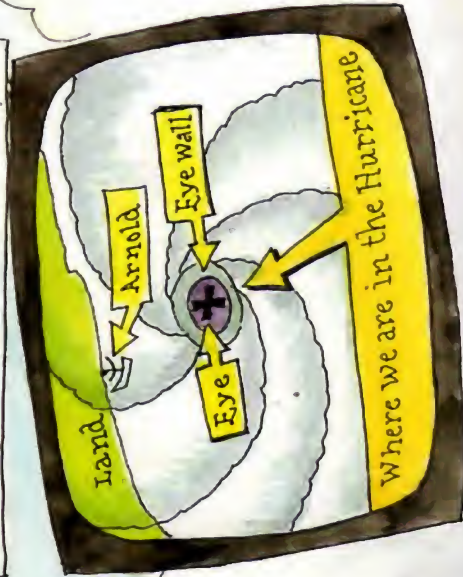
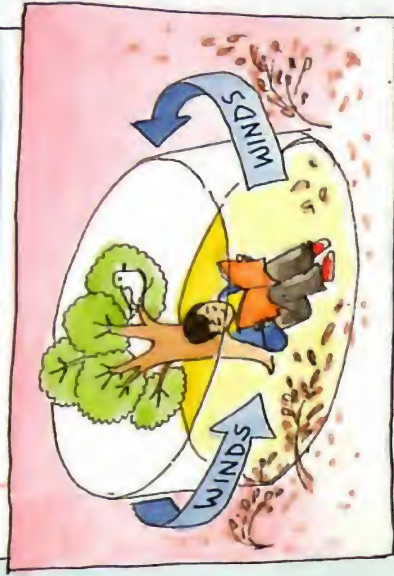




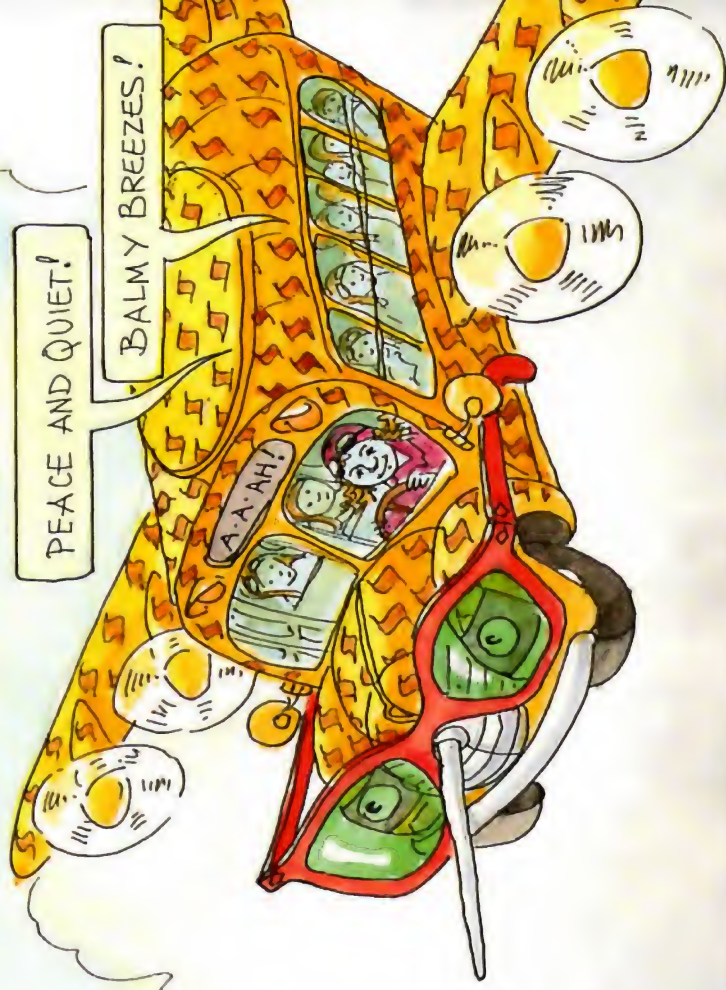
# IT'S QUIET IN THE EYE OF A

HURRICANE by Carlos

The fierce swirling winds of the hurricane do not enter the centre of the storm.



Then suddenly everything was quiet.  
"Class, we have entered the eye – or centre of the hurricane!" announced Miss Frizzle.  
The ocean waves still crashed below and the winds howled outside, but in the eye only gentle breezes blew.  
Up above, the sky was blue and the sun was shining.  
We relaxed and enjoyed ourselves.





We flew about thirty miles across the eye.

Then the Friz called out,

"We will enter the other side of the eye wall now."

“Don’t go!” we cried,

but the plane was already  
on its way — back into the  
hurricane's fierce wind and rain.

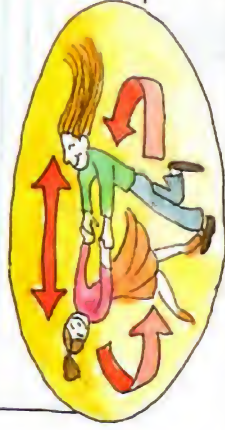
WHY DON'T HURRICANE WINDS  
O BLOW INTO THE EYE?

by Shirley

The winds swirl in towards the eye of the storm, but

they do not enter it because

- they are pushed out by the same force that pushes you outwards when you spin around.



WE'RE TRYING TO  
REACH LAND BEFORE  
THE FULL FORCE OF  
THE HURRICANE HITS!

GOOD IDEA!

THE HURRICANE IS  
APPROACHING LAND.  
THERE WILL BE  
HEAVY FLOODING  
ALONG THE COAST.



## HOW HURRICANES TRAVEL

by Wanda

- When a hurricane starts, it usually moves slowly—about 10 to 20 miles per hour. As the storm gets further north, its speed can increase up to 60 miles per hour!
- Hurricanes can travel hundreds of miles each day.



- WHICH PART OF THE HURRICANE IS STRONGEST?

by Florrie

The right front corner is strongest because the whirling winds are circling towards the shore. They add their strength to the winds that move the storm forward.

The entire hurricane was moving across the ocean towards land, and we were going with it! "The right forward corner of the hurricane as you are looking towards land has the strongest wind and rain and the highest ocean waves," shouted the Friz. Naturally, she flew directly into that part.







ARNOLD  
SHOULD BE  
REACHING LAND  
ANY MINUTE NOW.

LET'S TAKE  
A SPIN.



THE HURRICANE  
SHOULD BE  
REACHING LAND  
ANY MINUTE NOW.

SALT  
WATER  
TAFFY

TELL ME  
ABOUT IT!

WE MUST  
EVACUATE  
BEFORE THE  
FLOODS COME.

ANOTHER WEATHER WORD  
by Dorothy Ann  
When people evacuate  
an area, they get out  
of there fast!



HURRICANES... THEN AND NOW

by Ralphie

In the past, there was less property damage. Today, coastal areas are more built up. So more houses and buildings are damaged in hurricanes.

But today, not as many lives are lost! In past times, many people were killed because no one knew when hurricanes were coming. Today, weather forecasts tell us to get ready for hurricanes.

As the hurricane approached land, the wind pulled up trees by the roots and blew the roofs off houses. It also blew ashore a huge dome of water called the storm surge.

The ocean rose ten feet higher than usual and, on top of that, there were giant waves. We were horrified as we watched the storm surge sweep over the shore below.

IN 1900, MORE THAN 6,000 PEOPLE DROWNED WHEN A STORM SURGE SWEEP ACROSS GALVESTON ISLAND, TEXAS, CLASS.

THAT WAS A LONG TIME AGO.

IT WOULDN'T HAPPEN NOW.





But that was nothing compared to the horror we felt when we heard the Friz shouting above the sound of roaring water,

"We seem to be running out of fuel, children!"

Sure enough, the plane was dipping lower and lower.

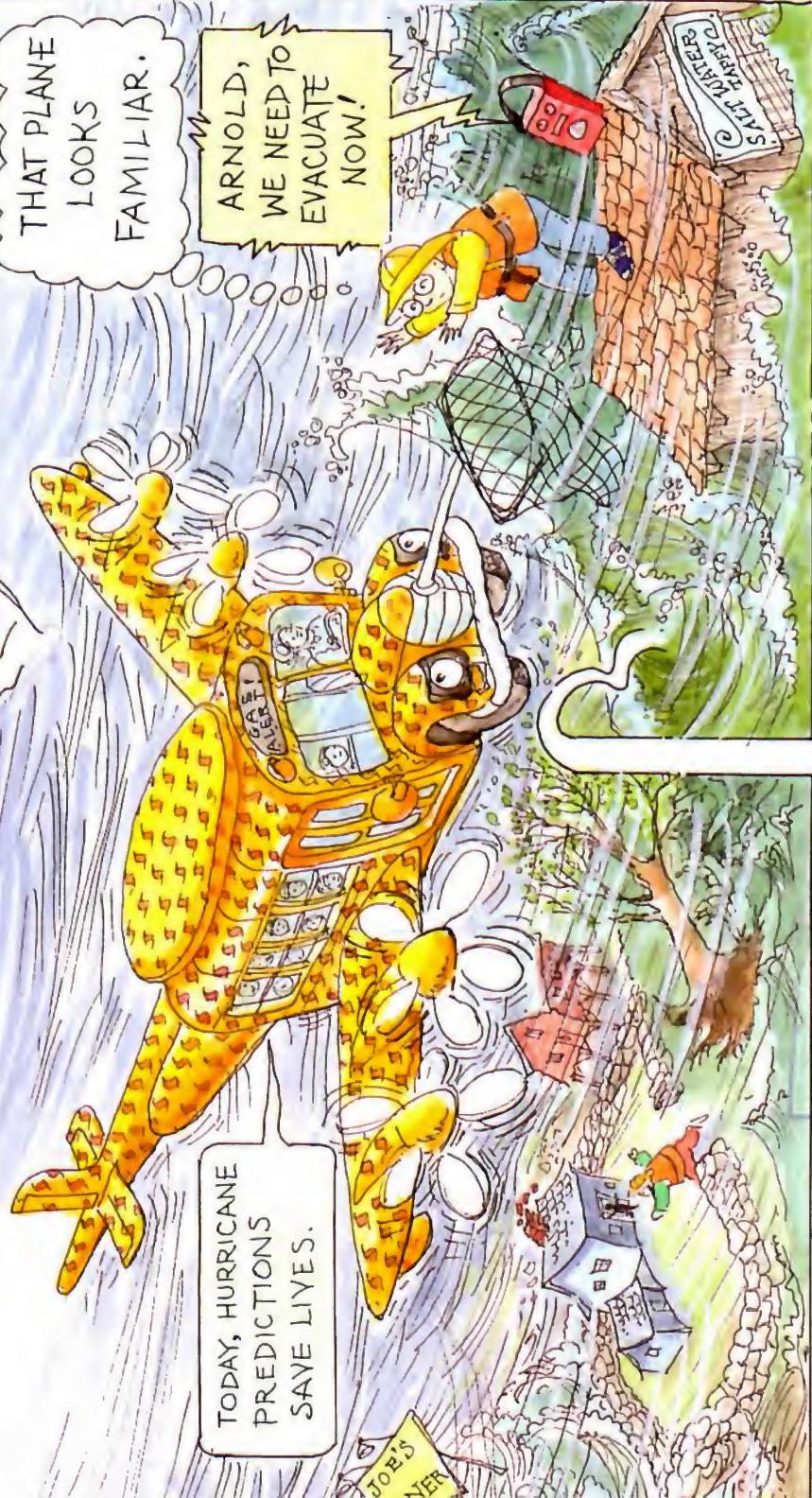
As we fell into the water, we saw Arnold waving to us from a nearby roof.

THAT KID LOOKS FAMILIAR.

THAT PLANE LOOKS FAMILIAR.

TODAY, HURRICANE PREDICTIONS SAVE LIVES.

ARNOLD, WE NEED TO EVACUATE NOW!



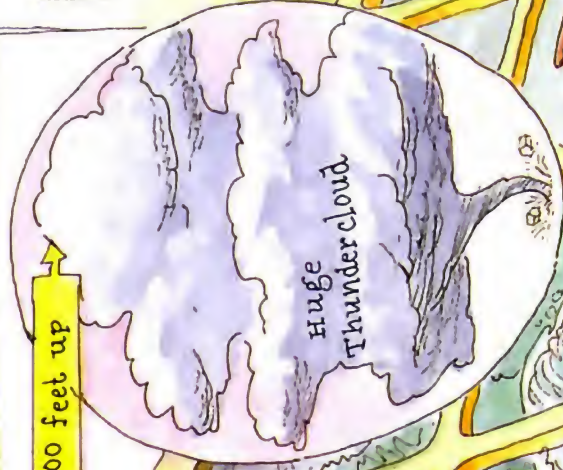


## WHAT IS A TORNADO?

by Arnold

A tornado is a twisting funnel-shaped whirlwind that hangs from a thunder cloud.

50,000 feet up



Somehow Arnold managed to get on the plane before we were swept away by the waves at the front edge of the hurricane. The water was creeping up the windows. The plane was going to sink for sure! Then we saw a dark, funnel shape coming our way.

WE FELL INTO THE OCEAN....

WE FLEW INTO THE EYE....

A FISHING BOAT  
PICKED US UP...

THE EYE WALL  
WAS THE WORST....

WE THOUGHT WE  
WERE GONERS!

WE THOUGHT WE  
WERE GONERS!

WE ARE GONERS!





"I've seen that shape on TV," said Ralphia.  
"I read about it in a book!" said Keesha.  
The twister came right for us.  
The next thing we knew, it had picked us up,  
and we were travelling by tornado!

TORNADOES OFTEN  
OCCUR AT THE EDGES  
OF HURRICANES  
THAT ARE MOVING  
OVER LAND, CLASS.

ARE TORNADOES AND  
HURRICANES ALIKE?

by Phil

Yes and no.

Tornadoes and hurricanes  
are both whirlwinds.

But tornadoes:

1. are much smaller than hurricanes
2. have faster winds, for the most part
3. destroy almost everything in their path.

Tornadoes can twist  
at speeds of 200 to 300  
miles per hour.

A TYPICAL TORNADO HAS  
A SHORT LIFE SPAN—  
ONLY A FEW MINUTES.

I THINK  
MY LIFE SPAN  
JUST GOT SHORTER.



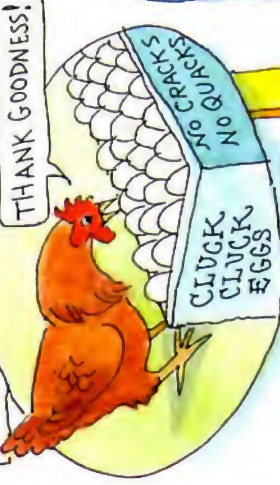


# CAN TORNADOES REALLY CARRY OBJECTS?

by Keesha

Yes! Tornadoes are like  
giant vacuum cleaners.  
They lift dirt, rubbish, and  
even large objects, such as  
houses, cars, trees, and  
railway trains!

Once a tornado picked up  
a crate of eggs and set them  
down miles away. Not one  
egg was broken!



THANK GOODNESS!



USUALLY THE THINGS THAT ARE  
PICKED UP BY A TORNADO ARE  
BROKEN APART...

BUT NOT ALWAYS.

After a while we felt a bump and looked around.  
The tornado had set us down gently.  
We were in our old school bus again.  
We were dressed in our usual clothes again.  
The hurricane was over.  
And we were at a petrol station.



Miss Frizzle filled up the tank and drove down the road as if nothing had happened. "As I said earlier, class, we are on our way to visit a weather station," she said.

TAKE OUR CASE, FOR EXAMPLE. WE'RE ALL OKAY.

EVEN THE RADIO IS STILL WORKING FINE.

HERE'S A TREAT JUST FOR YOU, ARNOLD— ANOTHER WEATHER UPDATE....

THAT DEPENDS ON WHAT YOU MEAN BY "WORKING FINE."





# WEATHER STATION

The weather forecasters at the station had a lot to tell us about hurricanes. We had a lot to tell *them*, too!



HURRICANE WINDS SWIRL IN A CIRCLE BECAUSE...

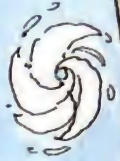
...OF THE ROTATION OF THE EARTH.

HEY...THAT'S RIGHT....;

HURRICANE ARE YOU PREPARED?



A HURRICANE FROM START TO FINISH



1. HOT AIR RISES OVER TROPICAL OCEANS NEAR EQUATOR  
2. THUNDERCLOUDS FORM



3 WINDS BEGIN CIRCLING AROUND EYE OF STORM



4. STORM TRAVELS





A HURRICANE  
DIES AS IT MOVES  
OVER LAND  
BECAUSE...

...THERE IS NO MORE  
HOT, MOIST OCEAN  
AIR TO FUEL THE  
STORM.

THE KIDS  
KNOW A LOT  
ABOUT  
HURRICANES  
DON'T THEY,  
AL?

THAT RADIO  
SPOKE TO ME!

HOW DID IT  
KNOW MY NAME?

I KNEW I SHOULD  
HAVE STAYED AT  
HOME TODAY.

5. CIRCLING WINDS  
INCREASE TO 74 MPH  
OR MORE

6. IF HURRICANE REACHES  
SHORE, LAND IS FLOODED  
BY STORM SURGE

7. HURRICANE FADES  
GRADUALLY AS IT  
MOVES INLAND



# THE FUTURE OF HURRICANES MORE, MORE, MORE?

by Amanda Jane

During times when the earth is warmer, there may be more hurricanes.

- Many scientists think the earth's temperature is going up. If this is true, there could be more hurricanes in our future.

GLOBAL WARMING  
COULD MEAN  
MORE HURRICANES...

...AND THEY  
MIGHT BE  
STRONGER!



Finally, we drove back to school and finished our weather projects.

## THREE BAD THINGS HURRICANES DO

by John

① Hurt people



② Destroy property



③ Make floods



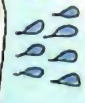
## THREE GOOD THINGS HURRICANES DO

by Gregory

① Balance earth's temperature by drawing away hot air



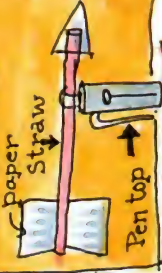
② Bring rain to dry places



③ Clean the air with falling rain



## Weather Vane

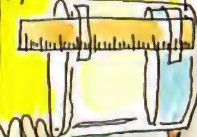


by Tim

## Rain Gauge

Put beaker out in rain.

How many inches fell?



by Amanda Jane



# MAKE A TWISTER IN A BOTTLE

by Miss Frizzle

- 1 Fill a bottle  $\frac{2}{3}$  full of water.
- 2 Hold bottle over sink.
- 3 Cover opening with one hand and turn bottle upside down.
- 4 Move bottle rapidly in a circle.
- 5 Stop circling.  
Take hand away from opening.
- 6 See twister in bottle as water runs out.



AND NOW FOR  
SOME MUSIC.....

WHAT? NO MORE  
WEATHER?

COOL!

ALL RIGHT!



I WANT TO FIND OUT MORE  
ABOUT...

How to keep safe  
in hurricanes,  
tornadoes, and  
thunderstorms.  
—Wanda



How snowflakes  
form  
—Ralphie



What causes  
frost on  
windowpanes?  
—Rachel



What is fog?  
—Arnold





MY FAVOURITE  
TEMPERATURE

by Carlos

98.6°  
Normal!



MY FAVOURITE  
CLOUD

by Shirley



It looked like a  
bunny!

MY FAVOURITE  
HAILSTORM

by Arnold

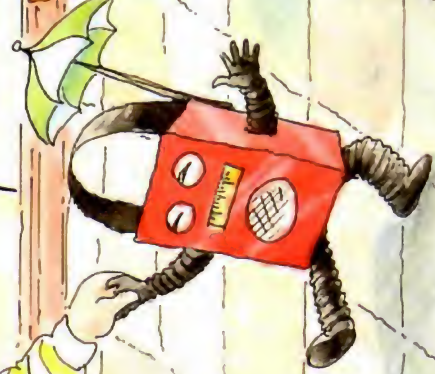


I was safe in bed.

YOU DANCE  
QUITE WELL  
FOR A RADIO.

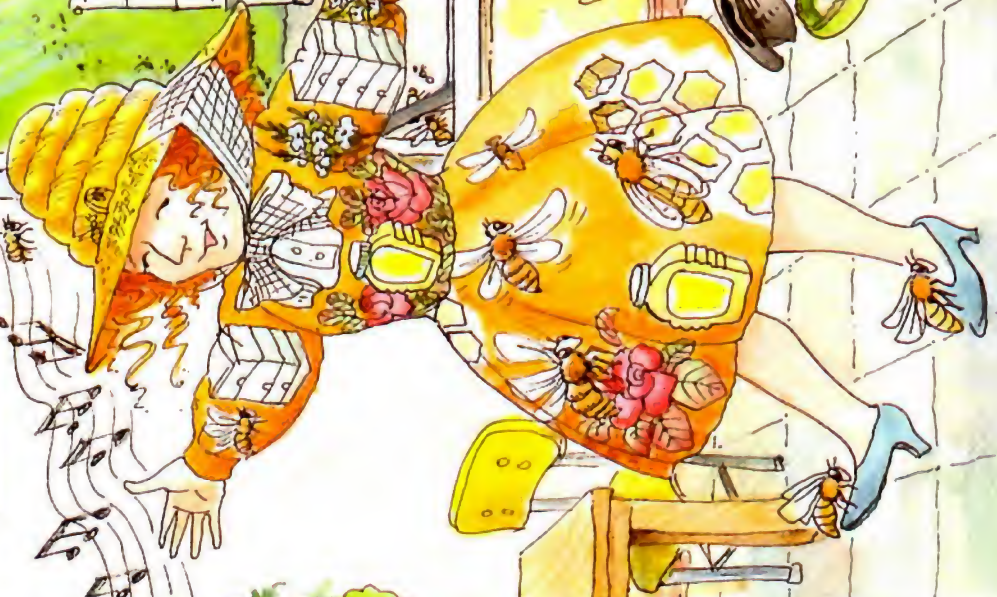
SINGIN' IN THE RAIN...

After that trip, we needed some time to relax.  
Miss Frizzle said we could have a party.  
We had great games, crazy dancing, and yummy snacks.  
And for a while, we didn't even think about  
Miss Frizzle's next class trip!





In Asia,  
a hurricane  
is called a  
typhoon.



AT MY OLD SCHOOL  
OUR TEACHER NEVER  
WORE BEE SHOES!

WHAT'S BUZZIN',  
COUSIN?

MISS FRIZZLE'S  
BUSY BEES





# The Magic School Bus Mail Bag

Letters... We get letters...



EXOTIC  
BROOKLYN

FOR SALE

Dear Joanna,  
Radios cannot  
have conversations  
with people.

To: JOANNA COLE  
AUTHOR  
c/o Scholastic  
Inc.

Barbara

Dear Bruce,  
Radios do not  
dance.

from Jean

To: Bruce Degen  
ARTIST  
c/o Scholastic Inc.

A fishing boat  
probably would not  
survive if it were out  
in a very strong  
hurricane.

From the Coast Guard

To the Magic School Bus Editor:

You should not have said  
that a school bus could turn  
into a hot air balloon or a  
weather plane. That cannot  
really happen. Your friends,  
Sam

Dear Joanna and Bruce,  
Reading about hurricanes  
may be fun, but it is no  
fun to be in one!

I know because my  
family was in Hurricane  
ANDREW and it was  
scary!

-Keith

© REBECCAH FRANK SUNNY  
ORANGE NJ



Dear Arnold,  
On your trip,  
the hurricane  
reached land. But  
most hurricanes go far  
out to sea and do not  
hurt people and property.

Your friend,  
Al, the weather scientist





To all readers:  
Some of the things that happen  
in this book are make-believe.  
But of course, all the  
science is real! & Bruce  
Joanna

Dear Bruce,  
If Arnold really fell from  
a great height into the  
ocean, he would need medical  
attention!  
From your Doctor

Dear Joanna,  
The things that happen on  
Miss Frizzle's trips are much  
too risky for children.  
Please keep them home  
next time.  
Your Mother

Winter in  
Connecticut

Miss Frizzle,  
We think the whole class  
should enroll in Phoebe's  
old school.  
-The students at the  
Better-Safe-Than-Sorry  
School







## Join Miss Frizzle and her class as they enter the eye of the hurricane...

Miss Frizzle's class are learning all about the weather – *everyone's* doing a weather project. Then Miss Frizzle decides it is the perfect day for a trip to the weather station – which means another amazing journey on the Magic School Bus!

Anything can happen as the class:

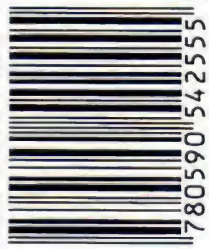
- Fly into the centre of a raging tropical storm.
- Brave winds of up to 150 miles an hour, and thunderclouds 50,000 feet tall!
- Encounter waves as high as a house when a storm surge floods the land.

School trips on the Magic School Bus are *never* boring!

"...the freshest, most amusing approach to science for children!"

– *The New York Times Book Review*

ISBN 0-590-54255-9



9 780590 542555 >

UK £7.99

MAGIC SCHOOL BUS